IMPROVING COTTON PRODUCTIVITY IN CAMEROON: LIMITATIONS TO YIELD IMPROVEMENT & POSSIBLE SOLUTIONS

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Cotton in the Cameroonian Economy

- Agriculture in Cameroon
  - About ¾ of the population live off agriculture which represents 40% of GDP (gross domestic product)
  - Cotton fibre: third non-petroleum export product after cocoa and coffee (5.2% of export earnings).

Cotton in the Cameroonian Economy

- Cameroon cotton production zone:
  - Divided into 8 agro-climatic regions composed of more than 350,000 farm units of 0.56 ha on average.
  - Extension service, commercialisation and processing are taken care of by the Cameroon Cotton Development Authority (SODECOTON).
- Cotton:
  - Strategic in the cropping system & an economic driving force in the savanna zone of North Cameroon.

Historical facts

- 1951: Launching of cotton production by the Compagnie Française pour le Développement des fibres Textiles (CFDT)
- 1954: Research work begins on cotton led by the IRCT
- 1967: Restructuring Cotton Research with 3 distinct sections: agronomy, entomology & genetics

Historique

- 1974: Création de la SODECOTON
- 1975: Intégration de la recherche cotonnière à l’Institut de Recherche Agricole et Forestière (IRAF)

Collaboration très étroite CFDT et IRCT perpétuée par la SODECOTON et l’IRAD

The success of cotton research in Cameroon is a result of the non-interruption of research work since 1955, as well as its close collaboration with the actors in the development sector.
IRAD – SODECOTON Relationship

Scientific aspects

Scientific collaboration between IRAD & SODECOTON has been concretised:
- Within the framework of the Cotton Programme for specific activities
- Through more global conventions within projects executed by SODECOTON

Principal results of this collaboration

- Development of 21 cotton varieties (3 presently cultivated in North – Cameroon)
  - Cultivated area increased 4.5 times
  - Cotton-grain production increased 11 folds
  - Average Field yields multiplied by 3
  - Fiber yields increased from 28.5% to 41.6%
- Evident of Helicoverpa armigera tolerance to insects
- Conditions & modalities of phytosanitary product application put in place

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Main Achievements of the collaboration

- Phytosanitary treatment program now conducted by most producer groups
- Outreach program to advise farm units is being tested at the level of farmer groups by SODECOTON
- Yearly Formation of support staff of SODECOTON
- Participation in the organisation of fora (Meetings, Workshops, Seminars et Conferences)
Main Achievements of the collaboration
- Methods of land preparation
- Sowing Dates
- Sowing Densities
- Fertilisation
  - Formulae et fertilizer formulation
  - Fertilizer application methods
  - Fertilizer application dates

Main Achievements of the collaboration
- Fight against weeds
  - Chemical
  - Cultural
- Some aspects of the physiology of cotton under poor rainfall conditions
- Protection & improvement of soil fertility with SCV (système de culture sous couvert végétal) – cropping under permanent vegetation cover

Constraint to Cotton Cultivation
- International Economique Environnement
  - Since May 2004, world cotton prices have remained low (< 0.60 USD/lb) despite some sporadic increases.
  - Weak dollar to the Euro aggravated the situation for producers;
  - Low productions result in higher cost of prdn of fiber (644 to 762 Fcfa Fob)

Constraints to Cotton Cultivation
- Socioeconomic constraints, but also scientific and technical constraints
  - Genetic materials (high yielding with good fiber technological characteristics)
  - Insects pressure and lack chemical insecticides with large spectrum and moderate prices for farmers

Response from research
- Experimental protocol for varietal tests in the cotton producing regions

Légende : 
- Garoua = Station BDCC
- Touboro = Station EVP
ENTOMOLY STUDIES

- RESISTANCE
- PROGRAMMES OF TREATMENT
- TESTING NEW INSECTICIDES
- LABORATORY WORKS ON Bt TOXINS

Merci de votre attention